

age regarded with contempt small books and a common reproach against a man was that he was the author of such." But the very magnitude of a work has often been the occasion of its neglect, as but very few persons have either leisure or inclination to wade through long series of ponderous tomes; a fact only apparent to book publishers within the last one hundred and fifty years. Such sized volumes tempt the reader to cry out as Macaulay did in his celebrated criticism upon Dr. Nares' life of Lord Burleigh.

The learning which gave rise to such works was as weighty, as solid, and as substantial as the volumes themselves. The period in which it flourished was before the day of easy paths to knowledge, compends, abridgments and short cuts; the royal road had not yet been discovered, the quagmires filled up, nor the forests leveled that obstructed the pathway. The consequence was that those who were scholars were more thoroughly and deeply learned than those of the present day. The diffusion of knowledge has seemingly resulted in sciolism; where once the few were educated, the many now are smatterers.

Knowledge is like a powerful stream, whose currents while checked within its banks flows deeply and strongly although silently; but when the obstructions which hem it on each side are removed, when the obstacles to its free dispersion are leveled, it spreads itself over the adjacent country, so that where once a noble river ran, naught now remains except a shallow babbling brook.

Diffusion of knowledge, as it is fashionable to call it in the cant of our day, is unfortunately frequently only a diffusion of ignorance.

*On a New Synthesis of Saligenin. By Wm. H. Greene, M.D.*

*(Read before the American Philosophical Society, January 16, 1880.)*

The method by which I have obtained saligenin synthetically is an application of a general method for the preparation of phenolic derivatives, made known by Reimer and Tiemann. Indeed, since by the reaction of chloroform or of carbon tetrachloride on an alkaline solution of sodium phenate salicylic aldehyde or salicylic acid may be obtained, it may naturally be expected that, under the same circumstances, methylene chloride would yield saligenin, the latter being an oxybenzylic alcohol.

A mixture of 30 grammes of methylene chloride, 30 grammes of phenol, and 40 grammes of sodium hydrate dissolved in 50 grammes of water, was heated in a sealed matrass in a water-bath. The reaction is complete in about six hours, after which the contents of the matrass is neutralized with hydrochloric acid, and agitated with ether, which takes up the saligenin and the excess of phenol. The ethereal solution is decanted, and the ether distilled off; the residue is repeatedly exhausted with boiling water, which takes up the saligenin and leaves the greater part of the phenol undissolved. The aqueous solution is concentrated to a small volume, and the drops of

phenol which separate on cooling are removed. After exposing the residue for some time over sulphuric acid, a crystalline mass is obtained, which is pressed, and recrystallized from boiling water or from alcohol. Pure saligenin is thus obtained.

The quantity of saligenin is by no means in proportion to the quantity of phenol employed, and an alcoholic solution of sodium hydrate was found to yield no better results than an aqueous solution, although the reaction took place more promptly.

Isomeric oxybenzylic alcohols may be, and probably are, formed at the same time, but I have not yet been able to isolate such compounds.

*On the Foramina Perforating the Posterior Part of the Squamosal Bone of the Mammalia. By E. D. Cope.*

(Read before the American Philosophical Society, February 6, 1880.)

The number of perforations of the posterior part of the squamosal bone in the *Mammalia* is considerable, and they have not attracted that attention from anatomists which their importance deserves. As I have found them to be especially valuable in diagnosis, I have thought it might be useful to place on record the manner of their occurrence in various recent genera with whose structure we are more or less familiar in other respects.

The one of these foramina of which some notice has been taken, is the *postglenoid*, which is mentioned by Flower (*Osteology of Mammalia*) as occurring in the dog and bear, and as absent in the cat. I find five other foramina which usually form the outlets of canals which are connected with the lateral venous sinns. The principal canal extends from the postglenoid foramen upwards and backwards between the os petrosum and the squamosal, and enters the cranial cavity at the superior border of the former. At a point in the parietal bone, often on or very near the squamosoparietal suture, it issues on the surface again, in the foramen which may be called the *postparietal*. A branch of the canal may take a posterior direction and issue on the occipital face of the skull in the suture between the *os petrosum* and *exoccipitale*, forming the *mastoid* foramen. Or a posterior branch may issue in the posterior part of the squamosal bone in a lateral foramen, the *postsquamosal*. In certain Mammals a large foramen perforates the base of the zygomatic process of the squamosal from above, entering the canal after a short course of its own; this I call the *supraglenoid* foramen. Still another inlet to the canal is found in some Mammals, perforating the squamosal below the crest which connects the zygoma with the inion, occupying a position posterior and exterior to the post-